UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,357	07/02/2003	Motoyuki Suzuki	16869B-080500US	7268

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
NALVEN, ANDREW L

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/613,357	SUZUKI, MOTOYUKI
	Examiner	Art Unit	
	Andrew L. Nalven	2134	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 July 2003</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-25</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

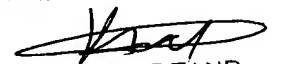**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>28 November 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

KAMBIZ ZAND
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>10/25/05, 6/17/2004</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-25 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The cited claims provide for the counter key data format and a fixed block architecture format. These formats are not described in the specification to a degree that would enable one of ordinary skill in the art to use the data formats. Examiner was unable to ascertain what the composition of the cited data formats.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

4.   Claim 17 is rejected under 35 U.S.C. 112, second paragraph as being incomplete

for omitting essential steps, such omission amounting to a gap between the steps. See

MPEP § 2172.01. The omitted steps are: the conversion of the received data from a

second data format to a third data format.

Claim Rejections - 35 USC § 102

        The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Church et al US Patent No. 5,794,234 in view of Williams et al US Patent No.

5,845,283 (hereafter Williams '283).

6.   With regards to claims 1, 3-4, Church teaches extracting data from a first

database associated with a first computer system of first type, the extracted data having

a first file format and a first character set format (Church, column 4 lines 1-32),

encrypting the data using a first security key (Church, column 4 lines 25-32), storing the

encrypted data in a shared volume provided in a storage system, the storage system

being coupled to a plurality of computer systems (Church, column 4 lines 33-45),

receiving the encrypted data from the shared volume of the storage system at a second

computer system of a second type (Church, column 4 lines 45-61), the first and second

computer system being of different computer systems (Church, column 4 lines 45-50),

converting the received data from the first file format to the second file format, the first

file format being suitable for the first computer system and the second file format being

suitable for the second computer system (Church, column 4 lines 55-61), decrypting the

received data using a second security key that is associated with the first security key

(Church, column 4 lines 45-50). Church fails to teach converting the received data from

the first character-set format to a second character set format, the first character set

format being suitable for the first computer system, and the second character set format

being suitable for the second computer system. However, Williams teaches converting

the received data from the first character-set format to a second character set format,

the first character set format being suitable for the first computer system, and the

second character set format being suitable for the second computer system (Williams

'283, column 4 lines 44-47, column 8 lines 60-65). At the time the invention was made,

it would have been obvious to a person of ordinary skill in the art to utilize Williams'

method of conversion among character set formats with Church's electronic commerce

system because it offers the advantage of allowing data manipulation and data

collection among diverse sources by providing system and data interoperability

(Williams '283, column 1 lines 20-32).

7.   With regards to claim 2, Church as modified teaches the first computer system

being a mainframe system (Church, column 3 lines 55-67, account system) and the

second computer system being an open system (Church, column 4 lines 45-61).

8.   With regards to claims 5 and 6, Church as modified teaches the first and second

character sets being either EBCDIC or ASCII formats (Williams, column 4 lines 44-47,

column 8 lines 60-65).

9.   With regards to claim 12, Church as modified teaches the step of decrypting the

received data using a second security key being performed after the step of converting

the received data from the first file format to a second file format (Church, column 4

lines 1-61) and the step of converting the received data from the first character set

format to a second character set format is performed after the step of decrypting the

received data using a second security key (Williams '283, column 4 lines 44-47, column

8 lines 60-65).

10.   Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Church et al US Patent No. 5,794,234 and Williams et al US Patent No. 5,845,283, as

applied to claim 1 above, and in further view of Bruce Schneier Applied Cryptography.

11.   With regards to claim 7, Church as modified fails to teach the first security key

being a public key associated with the second computer system and the second

security key being a private key associated with the second computer system.

However, Schneier teaches the first security key being a public key associated with the

second computer system and the second security key being a private key associated

with the second computer system (Schneier, pages 31-32). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Schneier's public key method with Church as modified because it offers the advantage of providing greater security by removing the likelihood that a key will be stolen during key negotiations (Schneier, pages 31-32).

12.   With regards to claim 8, Church as modified fails to teach the first security key being a private key associated with the first computer system and the second key being a public key associated with the first computer system. However, Schneier teaches the first security key being a private key associated with the first computer system and the second key being a public key associated with the first computer system (Schneier, pages 31-32). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Schneier's public key method with Church as modified because it offers the advantage of providing greater security by removing the likelihood that a key will be stolen during key negotiations (Schneier, pages 31-32).

13.   With regards to claim 9, Church as modified teaches the first and second computer systems are coupled to the storage system via a storage area network and the storage system includes at least one disk array unit (Church, column 3 lines 25-55), but fails to teach the first key and the second security key are common keys. However, Schneier teaches the first key and the second key are common keys (Schneier, page 28). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Schneier's common key method with Church as

modified because it offers the advantage of providing a fast and simple encryption

method that is unlikely to be broken if the key is kept secret (Schneier, page 28).

14. Claims 10-11, 16-20 and 23-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Church et al US Patent No. 5,794,234 and Williams et al US Patent

No. 5,845,283, as applied to claim 1 above, and in further view of Tamaki et al US

PGPub 2002/0059427.

15. With regards to claims 10 and 16-18, 23-24, Church as modified teaches

everything described above in regards to claim 1 and further teaches storing encrypted

data (Church column 4 lines 33-45), but fails to teach storing the encrypted data in a

first volume of the storage system, the first volume being associated with the first

computer system wherein the plurality of computer systems are associated with a

plurality of different companies. However, Tamaki teaches storing the encrypted data in

a first volume of the storage system, the first volume being associated with the first

computer system wherein the plurality of computer systems are associated with a

plurality of different companies (Tamaki, paragraph 0048). At the time the invention

was made, it would have been obvious to a person of ordinary skill in the art to utilize

Tamaki's method with Church as modified because it offers the advantage of reducing

the cost of running a data center and providing security to individual companies

(Tamaki, paragraph 0003).

16. With regards to claim 11, Church as modified teaches the shared volume is

configured to be accessed only by computer systems of a given company and the first

and second computer systems being associated with the given company (Tamaki,

paragraph 0048).

17.   With regards to claim 19, Church as modified teaches the third format being a

character set format of a first type and the fourth format being a character set format of

a second type (Williams '283, column 4 lines 44-47, column 8 lines 60-65).

18.   With regards to claim 20, Church as modified teaches the step of decrypting the

received data using a second security key being performed after the step of converting

the received data from the first file format to a second file format (Church, column 4

lines 1-61) and the step of converting the received data from the first character set

format to a second character set format is performed after the step of decrypting the

received data using a second security key (Williams '283, column 4 lines 44-47, column

8 lines 60-65).

19.   Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Church et al US Patent No. 5,794,234 and Williams et al US Patent No. 5,845,283, as

applied to claim 1 above, and in further view of Williams et al US PGPub 2005/0021969

(hereafter Williams '969).

20.   With regards to claim 13, Church as modified fails to teach the generating,

transmission, and receiving of a digital signature. However, Williams '969 teaches

generating a digital signature of the first computer system using the extracted data

(Williams '969 paragraph 0060), transmitting the digital signature from the first computer

system to the second computer system (Williams '969 paragraph 0060), receiving the

digital signature at the second computer system (Williams '969 paragraph 0061) and

validating the received digital signature at the second computer system (Williams '969

paragraph 0061). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to utilize William's '969 method of sending digital

signatures because it offers the advantage of providing verification that data has not

been altered (Williams 969, paragraph 0061).

21.   With regards to claim 14, Church as modified teaches the digital signature sent

over a link that is different from a communication link used to transfer the data from the

first computer system to the second computer system (Williams 969, paragraph 0060).

22.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Church

et al US Patent No. 5,794,234 in view of Bruce Schneier <u>Applied Cryptography</u>.

23.   With regards to claim 15, Church teaches everything described above in regards

to claim 1, but fails to teach the first security key being a public key associated with the

second computer system and the second security key being a private key associated

with the second computer system. However, Schneier teaches the first security key

being a public key associated with the second computer system and the second

security key being a private key associated with the second computer system (Schneier,

pages 31-32). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to utilize Schneier's public key method with Church as

modified because it offers the advantage of providing greater security by removing the

likelihood that a key will be stolen during key negotiations (Schneier, pages 31-32).

24.   Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Church et al US Patent No. 5,794,234, Williams et al US Patent No. 5,845,283,

and Tamaki et al US PGPub 2002/0059427, as applied to claim 16 above, and in further

view of Williams et al US PGPub 2005/0021969 (hereafter Williams '969).

25.   With regards to claim 13, Church as modified fails to teach the generating,

transmission, and receiving of a digital signature. However, Williams '969 teaches

generating a digital signature of the first computer system using the extracted data

(Williams '969 paragraph 0060), transmitting the digital signature from the first computer

system to the second computer system (Williams '969 paragraph 0060), receiving the

digital signature at the second computer system (Williams '969 paragraph 0061) and

validating the received digital signature at the second computer system (Williams '969

paragraph 0061). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to utilize William's '969 method of sending digital

signatures because it offers the advantage of providing verification that data has not

been altered (Williams 969, paragraph 0061).

26.   With regards to claim 21, Church as modified teaches the digital signature being

received via a local area network and the data is received via a storage area network

(Williams '969 paragraphs 0060-0061).

27.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Church

et al US Patent No. 5,794,234, Williams et al US Patent No. 5,845,283, and Tamaki et

al US PGPub 2002/0059427, as applied to claim 24 above, and in further view of Bruce

Schneier Applied Cryptography.

28.   With regards to claim 25, Church teaches everything described above in regards

to claim 1, but fails to teach the first security key being a public key associated with the

second computer system and the second security key being a private key associated

with the second computer system. However, Schneier teaches the first security key

being a public key associated with the second computer system and the second

security key being a private key associated with the second computer system (Schneier,

pages 31-32). At the time the invention was made, it would have been obvious to a

person of ordinary skill in the art to utilize Schneier's public key method with Church as

modified because it offers the advantage of providing greater security by removing the

likelihood that a key will be stolen during key negotiations (Schneier, pages 31-32).

Conclusion

29.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

30.   Syed US PGPub 2003/0084108 discloses a system for providing a push gateway

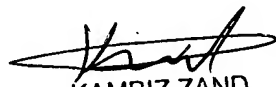between consumer devices and a remote content server.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571 272 6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Nalven

KAMBIZ ZAND
PRIMARY EXAMINER